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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Nemati, et al.

Examiner:

Jerome Jackson Jr.

Serial No.:

10/706,162

Group Art Unit:

2815

Filed:

Nov. 12, 2003

Docket No.:

C-028

Title:

THYRISTOR CIRCUIT AND APPROACH FOR TEMPERATURE

STABILITY

AMENDMENT TO APPEAL BRIEF

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In response to the Notification of Non-Compliant Appeal Brief, the previously submitted appeal brief is amended as follows:

- (A) Item Number (4) in the Notification: Please add the following "Summary of Claimed Subject Matter" to the Appeal Brief
 - (v) Summary of Claimed Subject Matter
 - (a) Independent Claim 1

The present invention is directed to a semiconductor device comprising a thyristor that can accept an external signal for controlling the holding current or forward blocking voltage of the thyristor as a function of temperature (e.g., see page 7, lines 1-5 of the specification). The thyristor has a first and a second base region (e.g., P-base 114 and N-base 116 in Fig. 2A). The external signal is generated by a control circuit (e.g., circuit 190 of Fig. 2A) and is coupled to one of the base regions of the thyristor. In this embodiment, the semiconductor

device has two control ports (e.g., ports 122 and 124 of Fig. 2A). One of the control ports (e.g., port 124) is disposed above a base region (e.g., N-base 116) and can couple the external signal (generated by circuit 190) to the base region. The other control port (e.g., port 122) can coupled another signal to the other base region.

(b) Independent Claim 6

The present invention is directed to a memory device that contains at least one thyristor (e.g., see Fig. 2B) that can accept an external signal for controlling the holding current or forward blocking voltage of the thyristor as a function of detected temperature-related failure (e.g., see page 4, lines 11-17, and page 13, line 7 to page 14, line 12, of the specification). A circuit (such as circuit 202 of Fig. 2C) can be used to detect temperature-related failures. The thyristor has a first and a second base region (e.g., P-base 114 and N-base 116 in Fig. 2A). The external signal is generated by a control circuit (e.g., circuit 190 of Fig. 2A) and is coupled to one of the base regions of the thyristor. The memory device has two control ports (e.g., ports 122 and 124 of Fig. 2A). One of the control ports (e.g., port 124) is disposed above a base region (e.g., N-base 116) and can couple the external signal (generated by circuit 190) to the base region. The other control port (c.g., port 122) can coupled another signal to the other base region.

(c) Independent Claim 19

The present invention is directed to a semiconductor device comprising a thyristor that can accept an external signal for controlling the holding current or forward blocking voltage of the thyristor as a function of temperature (e.g., see page 7, lines 1-5 of the specification). The thyristor has a first and a second base region (e.g., P-base 114 and N-base 116 in Fig. 2A). The external signal is generated by a control circuit (e.g., circuit 190 of Fig. 2A) and is coupled to one of the base regions of the thyristor. In this embodiment, the semiconductor device has two control ports (e.g., ports 122 and 124 of Fig. 2A). One of the control ports (e.g., port 124) is disposed above a base region (e.g., N-base 116) and can couple the external signal

(generated by circuit 190) to the base region. The other control port (c.g., port 122) can coupled another signal to the other base region.

- (B) Item Number (10) in the Notification: Please add the following appendices to the Appeal Brief
 - (ix) Evidence Appendix

None

(x) Related Proceedings Appendix:

None

(C) IDS

A fee transmittal for 37 CFR 1.17(p) fee is enclosed. Consideration of the IDS is respectfully requested.

(D) Others

A Petition for Extension of Time for one month is enclosed. The commissioner is hereby authorized to charge any other fees, including additional extension of time fees, which may be required to deposit account 50-2538.

Respectfully Submitted

H. C. Chan Reg. No. 35, 477